

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. -11 (Cancelled)

12. (Currently Amended) A chain conveyor comprising:

a first driving shaft, the first shaft comprising a at least one multi-directional rotatable joint and ends of the shaft rotate about a horizontal axis while a central extent of the shaft between the joints rotates about an axis oriented at an angle with respect to the horizontal axis;

a second shaft;

at least a pair of chains operatively connecting the first and second shafts and

a pressure responsive cylinder having an extendible shaft for providing and maintaining tension in the chains

and further comprising a locking adjustment mechanism for maintaining tension in the chains when the conveyor is not energized.

13. (original) The conveyor according to claim 12, further comprising independent automatically adjusting chain tensioning mechanisms for maintaining tension in each of the chains.

14. (original) The conveyor according to claim 13, wherein the chain adjusting mechanisms comprise a length adjustable cylinder having an extendible shaft for providing and maintaining tension in the chains.

15. (Previously Presented) The conveyor according to claim 13, wherein the chain adjusting mechanisms comprise a pressure responsive cylinder being resiliently attached to at least one of said shafts, and having an extendible shaft for providing and maintaining tension in the chains.

16. – 29. (Cancelled)

30. (Currently Amended) A vertical conveyor apparatus comprising:

an upper driving shaft;

a lower shaft;

at least a pair of chains operatively connecting the shafts;

independent automatically adjusting chain tensioning mechanisms for maintaining tension in each of the chains including a pressure responsive cylinder having an extendible shaft for providing and maintaining tension in the chains; and

a plurality of flights, each flight associated with each of the chains

and wherein the upper driving shaft includes at least one rotatable multi-directional joint and portions of the shaft are oriented along different axes of rotation.

31. (original) The conveyor apparatus according to claim 30, wherein the chain adjusting mechanisms comprise a hydraulic cylinder having an extendible shaft for providing and maintaining tension in the chains.

32. (original) The conveyor apparatus according to claim 30, wherein the chain adjusting mechanisms comprise a pneumatic cylinder having an extendible shaft for providing and maintaining tension in the chains.

33. (cancelled)

34. (Currently Amended) The conveyor apparatus of claim 30-33, wherein the at least one rotatable multi-directional joint further comprises two rotatable multi-directional joints and ends of the shaft are oriented along a horizontal axis and a central extent of the shaft between the joints is oriented at an angle with respect to the horizontal axis.

35. (original) The conveyor apparatus of claim 30, further comprising a locking adjustment mechanism for maintaining tension in the chains.

36. – 45. (Cancelled)

46. (Currently Amended) A vertical conveyor apparatus comprising:

an upper driving wheel;

a lower driven wheel;

at least a pair of drive bands operatively connecting the wheels;

independent automatically adjusting band tensioning mechanisms for maintaining tension in each of the bands including a pressure responsive cylinder having an extendible shaft for providing and maintaining tension in the chains; and

a plurality of flights, each flight associated with each of the bands

wherein the upper driving wheel is operatively connected to a shaft including at least one rotatable multi-directional joint and portions of the shaft are orientable along different axes of rotation when band tension is adjusted.

47. (original) The conveyor apparatus according to claim 46, wherein the band adjusting mechanisms comprise a hydraulic cylinder having an extendible shaft for providing and maintaining tension in the bands.

48. (original) The conveyor apparatus according to claim 46, wherein the band adjusting mechanisms comprise a pneumatic cylinder having an extendible shaft for providing and maintaining tension in the bands.

49. (Cancelled)

50. (Currently Amended) The conveyor apparatus of claim 46 49, wherein the at least one rotatable multi-directional joint further comprises two rotatable multi-directional joints and ends of the shaft are oriented along a horizontal axis and a central extent of the shaft between the joints is orientable at an angle with respect to the horizontal axis when band tension is adjusted.

51. (original) The conveyor apparatus of claim 46, further comprising a locking adjustment mechanism for maintaining tension in the bands.

52. (Previously Presented) The conveyor apparatus according to claim 46, wherein the band adjusting mechanisms comprise a remotely adjustable mechanism for providing and maintaining tension in the bands.

53. (original) The conveyor apparatus according to claim 46, wherein the band adjusting mechanisms comprise a manual mechanical adjustment mechanism for providing and maintaining tension in the bands.

54. (Previously Presented) The conveyor apparatus according to claim 46, wherein the lower driven wheel is operatively connected to a shaft orientable along a horizontal axis of rotation when band tension is adjusted.